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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,426	10/12/2001	Darren Kenneth Rogers	1482(Touchstone)	1151
48642	7590	11/16/2005	EXAMINER	
PHILIP DOUGLAS LANE P.O. BOX 651295 POTOMAC FALLS, VA 20165-1295			VO, HAI	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 11/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,426

Applicant(s)

ROGERS, DARREN KENNETH

Examiner

Hai Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-12 and 14-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-12, and 14-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The 102 art rejections over Rogers et al (US 6,656,238) are changed to 102/103 art rejections in view of the present amendment.
2. The art rejections over McCullough, Jr. et al (US 4,999,385) are maintained.
3. All of the double patenting rejections are maintained until the submission of the terminal disclaimer.
4. The art rejections over Klett et al (US 6,673,328) are maintained.
5. The art rejections over Stiller et al (US 5,888,469) taken alone or in combination with Klett et al (US 6,673,328) are maintained.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9-12, and 14-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rogers et al (US 6,656,238). Rogers teaches a wall board comprising a carbon foam laminated to a fiber-reinforced polymer sheet (column 6, lines 10-25). The carbon foam is a coal-based carbon foam (column 6, lines 60-65). The particulate foal has a free swell index from 3.5 to 5.0 (column 2, lines 65-66). The carbon foam has a density from 0.1 to 0.3 g/cm³ (column 7, lines 65-67). The particulate coal is heated in a pressurized non-oxidizing atmosphere having a pressure up to 500 psi to a temperature from 300°C to 700°C (column 3, lines 20-30). The carbonizing temperature is from 800°C to about 1200°C (column 5, lines 55-60), overlapping with the claimed range of 600°C to 800°C. Rogers does not specifically disclose the green foam being soaked for about 2 to 30 mins. However, it is a product-by-process limitation not as yet shown to produce a patentably distinct article. It is the examiner's position that the carbon foam of Rogers is identical to or only slightly different than the claimed elastic belt prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity. The carbon foam is a coal-based carbon foam having a density of 0.1 to 0.3 g/cm³ within the claimed range. The particulate foal has a free swell index from 3.5 to 5.0 within the claimed range. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with

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the claims and how the Comparative Examples are commensurate in scope with Rogers.

Rogers does not specifically disclose the carbon foam having a dielectric constant and electrical resistivity as recited in the claims. However, it appears that the carbon foam of Rogers meets all the structural limitations and chemistry as required by the claims as discussed above. Therefore, it is the examiner's position that the dielectric constant and electrical resistivity would be inherently present. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete. Like material has like property. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. Accordingly, Rogers anticipates or strongly suggests the claimed subject matter.

The art rejections over Rogers have been maintained for the following reasons. Applicants argue that since the properties of the carbon foam may vary depending upon how the carbon foam was made, the claimed electrical resistivity and dielectric constant would not necessarily present from the teachings of Rogers. The examiner disagrees. It appears that Rogers uses the same materials and ***the basic processing steps*** to produce the carbonized foam as Applicants. The carbon foam is a coal-based carbon foam (column 6, lines 60-65). The particulate coal has a free swell index from 3.5 to 5.0 (column 2, lines 65-66). The carbon foam has a density from 0.1 to 0.3 g/cm³ (column 7,

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lines 65-67). The particulate coal is heated in a pressurized non-oxidizing atmosphere having a pressure up to 500 psi to a temperature from 300°C to 700°C (column 3, lines 20-30). The carbonizing temperature is from 800°C to about 1200°C (column 5, lines 55-60), overlapping with the claimed range of 600°C to 800°C. The difference between Rogers' process and Applicants' process is how long the carbon foam was heated at such temperatures. The carbon foam of Rogers is heated to 800°C to about 1200°C for one hour to three hours while the carbon foam of the present invention is heated to 600°C to about 800°C for 2 to 30 mins. The product-by-process limitations are not important to the article claims until Applicants provide factual evidence or Affidavit to demonstrate that such product-by-process limitations are critical to providing the special feature that makes the present application unobvious over the prior art. Since Applicants fail to show that heating the carbon foam of Rogers to the temperature of 800°C to about 1200°C and soaking it for one hour to three hours would result in a carbon foam having the electrical resistivity and dielectric constant outside the claimed range, such product-by-process limitations are thus irrelevant to the article claims. Accordingly, the art rejections are sustained.

9. Claims 9-11, and 14-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stiller et al (US 5,888,469) substantially as set forth in the 02/23/2005 Office Action.

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10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stiller et al (US 5,888,469) in view of Klett et al (US 6,673,328) substantially as set forth in the 02/23/2005 Office Action.

The art rejections over Stiller take alone or in combination with Klett have been maintained for the following reasons. Applicant argues that Stiller and Applicant use different starting materials that do not have identical composition because Applicant directly heats the original (non-extracted) bituminous coal particles to form a carbon foam whereas Stiller uses the extracted bituminous coal particles to form the carbon foam. The arguments are not found persuasive for patentability because they are not commensurate in scope with the claims. The non-extracted bituminous particles are not presently claimed to provide that right from very beginning, the starting materials of the present invention is chemically different from those of the Stiller invention. Applicant argues that since Stiller does not teach or suggest the processing steps as recited by the claims, the electrical resistivity and dielectric constant would not necessarily present. The examiner disagrees. It is noted that Stiller does not teach or suggest that the green foam was heated to a temperature from 600°C to 800°C as recited by the claims but rather a temperature from 975 °C to 1025 °C. Turning to Applicants' disclosure, heating the green foam from 600°C to 1600°C results in the calcined foam having an electrical resistivity of about 0.01 to 1×10^6 as shown in figure 2 of the present specification. Likewise, it appears that Stiller is heating the green foam to a temperature within the range disclosed in the

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Applicants' specification to achieve the claimed electrical resistivity. Therefore, it is believed by the examiner that the electrical resistivity and dielectric constant would be inherently present.

11. Claims 12, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Klett et al (US 6,673,328) substantially as set forth in the 02/23/2005 Office Action.

The art rejections over Klett et al (US 6,673,328) have been maintained for the following reasons. Applicants argue that since Klett is using different material and processing conditions, it cannot flow the properties of the carbon foam in Klett would necessarily be inherent. The examiner disagrees. Klett is using the same material, i.e., coal tar pitch to form the green foam as Applicants. Applicants' attention is directed to column 19, lines 25-30 and table II, samples G-B wherein the pitch precursor was processed with a pressure of 400 psi to 630°C to form a green foam. The green foam is then heated up to 1000°C overlapping with the claimed range. Turning to Applicants' disclosure, heating the green foam from 600°C to 1600°C results in the calcined foam having an electrical resistivity of about 0.01 to 1×10^6 as shown in figure 2 of the present specification. It appears that Klett is heating the green foam to a temperature within the range disclosed in the Applicants' specification to achieve the claimed electrical resistivity. Therefore, it is believed by the examiner that the electrical resistivity and dielectric constant would be inherently present.

12. Claims 12, 14, 15 and 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McCullough, Jr. et al (US 4,999,385) substantially as set forth in the 02/23/2005 Office Action. The art rejections have been maintained for the following reasons. Applicants argue that McCullough uses different materials and different processes to form the carbon foam, therefore, dielectric constant would not necessarily present from the teachings of McCullough. The examiner disagrees. McCullough teaches a flame retardant article comprising a carbon foam having a resistivity from 10 to 10^3 ohm-cm and a density from 0.25 to 12 pcf within the claimed ranges (column 4, lines 20-23 and 50-51). It appears that the McCullough foam has the volume resistivity within the claimed range and volume resistivity is related to dielectric constant. Therefore, it is not seen that the carbonaceous foam of McCullough, Jr. would have a dielectric constant outside the claimed range as the volume resistivity is within the claimed range. It is recognized that McCullough uses different approach to form the carbon foam. Therefore, the arguments directed to the different process are considered irrelevant to the article claims.

Accordingly, therefore, the art rejections are thus maintained.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164

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USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 9-11, and 14-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of US Patent No. 6,833,011 substantially as set forth in the 02/23/2005 Office Action.
15. Claim 12 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of US Patent No. 6,833,011 in view of in view of Klett et al (US 6,673,328) substantially as set forth in the 02/23/2005 Office Action.
16. Claims 9-11, and 14-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,238 substantially as set forth in the 02/23/2005 Office Action.
17. Claim 12 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,238 in view of Klett et al (US 6,673,328) substantially as set forth in the 02/23/2005 Office Action.

18. Claims 9-11 and 14-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,239 substantially as set forth in the 02/23/2005 Office Action.
19. Claim 12 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,239 in view of Klett et al (US 6,673,328) substantially as set forth in the 07/28/04 Office Action.
20. Claims 9-12, and 14-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-39 of U.S. Patent No. 6,814,765 substantially as set forth in the 07/28/04 Office Action.
21. All of the double patenting rejections made in the 07/28/2004 Office Action are sustained until the submission of the terminal disclaimer.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

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period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hai Vo

**HAI VO
PRIMARY EXAMINER**